

US009915191B2

(12) United States Patent

Free et al.

(54) AIR INTAKE SYSTEM FOR INTERNAL COMBUSTION ENGINE

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 15/429,108

(22) Filed: Feb. 9, 2017

(65) **Prior Publication Data**

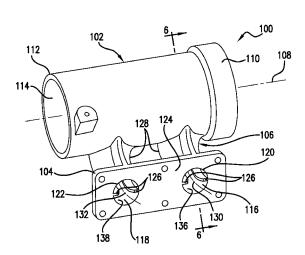
US 2017/0152791 A1 Jun. 1, 2017

Related U.S. Application Data

(62) Division of application No. 14/489,584, filed on Sep. 18, 2014, now Pat. No. 9,605,630, which is a division (Continued)

(51) **Int. Cl. F02M 35/10 F02M 31/00**(2006.01)

(Continued)



(10) Patent No.: US 9,915,191 B2

(45) **Date of Patent:** Mar. 13, 2018

(58) Field of Classification Search

CPC Y02T 10/146; F02B 75/22; F02B 31/04; F02M 35/112; F02M 35/1045;

(Continued)

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(57) ABSTRACT

An intake manifold is provided that controls swirl on entry to a combustion chamber. Each intake manifold includes a fin or rib portion positioned to reduce or eliminate swirl induced by the configuration of the intake manifold, particularly when used in a large engine having a left bank and a right bank of combustion chambers. By controlling swirl induced by the intake manifold, swirl consistency is improved between engine cylinders and between the left bank and the right bank, improving the consistency of power output and reducing emissions, particularly particulate emissions, also called smoke.

9 Claims, 8 Drawing Sheets

